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Remarks

The present response is to the Office Action mailed in the above-referenced case on December 11, 2003. Claims 1-4, 9-18, 21, 23 and 25-34 are presented below for examination. Claims 1-4, 9-18, 21, 23 and 25-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu (U.S. 6,393,319 B1), hereinafter Hsu, in view of Viswanthan et al. ("Evolution of Multiprotocol Label Switching"), hereinafter Viswanthan and in further view of Wildford (6,512,766 B2), hereinafter Wildford.

Applicant has carefully studied the prior art references cited and applied by the Examiner, and the Examiner's rejections and statements in the instant Office Action. In response, applicant herein amends the claims to more particularly point out and distinctly claim the subject matter of applicant's invention regarded as patentable. Applicant also cancels some claims which are duplicates.

Applicant herein amend the language of the base method claims to more accurately recite the method steps for routing packets and flows in a multipath network of nodes as disclosed in applicant's specification, and further amends some of the depending claims to agree in language with the base claims as amended.

In view of applicant's previous claim amendments and argument presented in response to the last Office Action dated September 30, 2003, the Examiner has withdrawn the obviousness rejection to Hsu in view of Viswanthan for the previous Office Action response filed by applicant on November 21, 2003, in particular, the rejection is withdrawn and replaced with a new rejection that further clarifies a normalized tag/function. In the instant Office Action the Examiner has provided another interpretation by supplying the new reference of

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Wildford as an additional reference, relying on Wildford for disclosing an
enhanced Internet packet routing look-up for either IP or MPLS packets. The
Examiner has on Wildford for disclosing that the routing table look-up involves
generating a hash key from the routing information and using a hash key to index
to routing table look-ups.

Due to previous claim amendments made by applicant to the base claims
in prior rounds of prosecution, the various steps for routing packets and flows in
the multipath network of nodes have become out of order as compared to those
steps of the specification with reference to applicant's Fig. 1, due to some
confusion relative to the order of the steps and function of the claimed invention.
Applicant herein amend the base claims to more accurately reflect the steps as
taught in applicant's invention, in the correct order, and further to more
particularly point out and distinctly claim the subject matter regarded as
patentable. Applicant also provides argument that the claims as amended
distinguish clearly and unarguably over the combined art of Hsu in view of
Viswanthan and further in view of the new reference of Wildford cited and
applied by the Examiner. For convenience, applicant herein reproduces claim 1 as
amended below.

Applicant's claim 1 as amended now recites:

*1. (Currently amended) A method for routing packets in a multipath network of
nodes, each packet having a routing in the network determined by a directed-
graph index, comprising;*

    *accessing a tag and a directed-graph index from the packet at a first
node;*

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producing a normalized tag from the accessed tag by applying a
normalizing function to the tag, the normalizing function used substantially
throughout the network;

determining a second node of a successor set of nodes by using the
normalized tag and directed-graph index to access a routing bias table;

replacing the tag of the packet with a randomized tag to give an updated
packet; and

routing the updated packet from the first node to the second node.;

wherein the directed-graph index determines at least one destination node,
and the routing bias table is selected from a plurality of routing bias tables
indexed by the first node and the directed-graph index, and the routing bias tables
satisfy an acyclic property, and the normalizing function enhances network
performance by reducing the number of bits involved in accessing the routing
table bias table.

Applicant's independent claim 18 is the method claim for routing flows in
a multipath network of nodes, and applicant herein amends the claim similarly in
accordance with method claim 1, and also amends some of the depending claims
so as to agree in language with the independent claims, or to correct the
dependencies.

Applicant now wishes to direct the Examiner's attention to applicant's
claim one as amended above, specifically the limitations reciting accessing a tag
and a directed-graph index from the packet at a first node, determining a second
node of a successor set of nodes by using the normalized tag and directed-graph
index to access the routing bias table, wherein the directed-graph index
determines at least one destination node, and the routing bias table is selected

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from a plurality of routing bias tables indexed by the first node and the directed-graph index.

Applicant wishes to emphasize to the Examiner the use of the directed-graph index included in the arriving packet at a first node, for determining the successor to destination node(s). It is the use of the directed-graph index at the first node which is an aspect of applicant's invention regarded by applicant as a key and patentable distinction over the combined prior art teachings, particularly that of the newly added reference of Wildford.

Wildford teaches, as is clearly disclosed in the summary portion, and elsewhere in the specification of Wildford, a method and system for routing information look-up for packets using routing protocols, in which both the destination address and the length of that destination address are matched using a look-up table having separate entries for selected addresses and their lengths, and in which the input interface associated with the packet is included in the information used for matching.

Upon careful and thorough review of the reference of Wildford, it is clear to applicant that there is no teaching or suggestion whatsoever having anything to do with accessing a tag as well as the directed-graph index for determining the successor node, or that the routing bias table is selected from a plurality of routing bias tables indexed by the first node and the directed-graph index, or further, that a directed-graph index arrives with the packet for accessing at the first node.

Applicant therefore believes that independent claims 1 and 18, which specifically recite such use of the directed-graph index, and which now recite the method steps more accurately in accordance with, and in the same order as the steps disclosed in applicant's specification with specific reference to applicant's Fig. 1, now distinguish clearly and unarguably over the combined prior art references.

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As applicant has amended the appropriate depending claims to agree in language with the independent claims as amended, or to correct the dependencies, and canceled some claims which are duplicates, depending claims 2-4, 9-11, 15-17, 21, 23, and 25-34 are then patentable on their own merits, or at least as depended from a patentable claim.

It is therefore respectfully requested that this application be reconsidered, the claims be allowed, and that this case be passed quickly to issue. If there are any extensions of time required beyond an extension specifically petitioned and paid with this response, such extensions are hereby requested. If there are any fees due beyond any fees paid by check with this response, authorization is given to deduct such fees from deposit account 50-0534.

Respectfully submitted,

Erol Basturk et al.

by_____
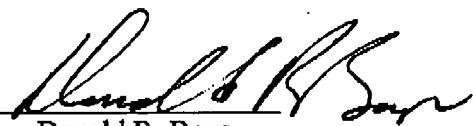
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